DOCUMENT RESUME

ED 229 165 PS 013 524

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TITLE A Comparison of Father's and Mother's Speech Patterns When Communicating with Pre-School Age Children.
PUB DATE Apr 83
NOTE 15p.; Paper presented at the Annual Meeting of the American Educational Research Association (Montreal, Canada, April 11-14, 1983).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Comparative Analysis; *Fathers; *Language Acquisition; *Mothers; Parent Child Relationship; *Preschool Children; Sentence Structure; *Verbal Communication; Word Frequency
IDENTIFIERS Length of Utterance

ABSTRACT

The purpose of this study was to analyze the speech of mothers and fathers as they interacted with their children in a similar setting. Specifically, the study compared mothers' and fathers' speech patterns in interactions with their preschool children, focusing on utterance length, sentence types, and word frequencies. Speech samples were obtained from 35 days of audiotape and videotape recordings of spontaneous conversations between 28 mothers and 28 fathers and their nursery school children as the parents accompanied their children to and from nursery school classrooms. Results indicated that while both mothers and fathers shorten the mean length of utterance in order to accommodate the language needs of their children, fathers used significantly more interrogative sentences than did mothers and mothers used significantly more declarative sentences than did fathers. In addition, fathers were found to use significantly more words of lower frequency than did mothers. (MP)

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ED229165

A COMPARISON OF FATHER'S AND MOTHER'S SPEECH PATTERNS WHEN COMMUNICATING WITH PRE-SCHOOL AGE CHILDREN

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PS013524

Paper presented at the Annual Meeting of the American Educational Research Association, Montreal, Canada, April 1983.

Printed in the U.S.A.

Much research in children's language development has concentrated on the role of input language in language acquisition. Most of these investigations have concentrated on the input speech of mothers to children (Broen, 1972; Phillips, 1970; Drach, 1969; Cazden, 1972; Brown and Belluigi, 1964; Snow, 1971, 1976, 1977). There has been only a very limited amount of research which has studied the role of the father's input language in the development of communicative competence. Recently, however, a few investigators have begun to examine the effects of fathers' communication with their children. The results of these investigations have shown that while fathers may have only a limited amount of time to spend with their children, it appears that even a limited amount of time spent in interaction can have far reaching effects on the child and that important inter-personal dynamics reside in father-child communications (Friedlander, 1972; Kotelchuck,1976; and Snow, Jacklin, Maccoby, 1983). Several studies have shown that there is much similarity between fathers' and mothers' input language. Studies by Golinkoff and Ames (1979), and Katsh (1980) found that fathers who spend fewer hours at home than mothers adjust their speech to their children much like mothers do, and that both mothers and fathers adjust their length of utterance and the concreteness and diversity of their

vocabulary relative to the age and production skill of the child. Hummel (1980) studied the speech register addressed to children and indicated that fathers and mothers are similar with respect to the speech addressed to their children, and in a study of a single father, Giattino and Hogan (1975) found that the father shortened the length of his utterance when addressing his child and that his speech seemed to be influenced by the needs of his child and by the feedback from her.

Other investigators have found significant contrasts between fathers' and mothers' interactive styles with children and in the amounts and kinds of lexical information they provided and elicited. Weinraub (1978) found that while both mothers' and fathers' speech is grammatically complete, relatively free from dysfluency and syntactically simple, he also noted that mothers' speech was syntactically more complex while fathers' speech was lexically more complex. The speech of fathers and mothers in a game playing situation was investigated by McLauglin, Schutz, and White (1980). The results of this investigation showed that fathers used more directly controlling language, ie. imperatives or direct suggestions, than did mothers whereas mothers preferred indirectly rather than directly controlling language. Masur and Gleason (1980) investigated play interactions of parents with pre-school aged children and found that fathers provided and elicited significantly

more information than mothers. More fathers than mothers requested labels and functions, indicating that fathers were more cognitively and linguistically demanding, and in this study children directed more total vocabulary to fathers than to mothers. Parke and O'Leary (1975) found that fathers generally provided a more stimulating, diversified, challenging and more didactic speech environment than mothers. In a 1977 study, Poler found that in interactions when both the father and the mother were present, the fathers tended to dominate the language interchanges, made less use of expansions, and appeared less conversational than mothers. Gleason (1975) reported that fathers used more imperatives than mothers when addresing their children. However, in another study done by Fash and Madison (1981), the results indicated that mothers and fathers were similar in their mean length of response, communicative dominance, use of expansion, and differed significantly only in their use of self repetition and references to the past.

Further investigation in the area of father-child language interaction is necessary to more clearly establish the father's role in language development. The purpose of this study was to analyze the speech of mothers and fathers as they interacted with their children in a similar setting. Specifically, the investigation compared mothers' and fathers' speech patterns when speaking to pre school children with regard to utterance length, sentence types,

and word frequencies.

Procedure

The subjects for this study were the 28 fathers and 28 mothers of 28 nursery school children. The children, 16 girls and 12 boys, ranged in age from two years four months to three years five months with a mean age of three years and one month. All of the children attended a nursery school with a student population of 158 in a large urban area in the Southwest. Fathers participating in this study ranged in age from 22 to 41 years with a mean age of 29 years. Mothers participating in this study ranged in age from 20 to 36 years of age with a mean age of 25 years. The educational level of the parents was varied. Approximately half of the fathers had attended or graduated from a college or professional school, and approximately one third of the mothers had either attended or graduated from a college or professional school. No attempt was made to obtain data on socio-economic levels.

The speech samples were obtained from audio and video tape recordings of spontaneous conversations between parents and children as parents accompanied their children to and from the nursery school classrooms. The nursery school had a long entry hall through which it was necessary to pass before arriving at any of the classrooms in the school, and generally the length of the hall resulted in verbal

interactions of approximatly 2 minutes in length between parent and child. Because the nursery school was located very near two large industrial employment centers, a number of fathers either brought their children to the center or picked them up after school each day. This enabled the researchers to identify a group of children who were brought to the school by one parent and picked up by the other parent. This made it possible to compare the conversations with both parents in a similar environment. The 28 children and 56 parents were video taped and audio taped while entering and leaving the school for 35 days. Because the school had participated in another research project during the previous semester, the students and parents were accustomed to having television cameras in the building. All children and parents entering the school were taped, but only conversations of the designated subjects were transcribed and analyzed. All parents of children attending the school signed a permission form to allow the video and audio taping, and they were told that the researchers were interested in studying children's language learning.

This procedure resulted in a total of 986 intelligible conversations which were transcribed and analyzed. Only conversations between the parent and child were analyzed. If either the parent or the child engaged in conversations with other adults or children in the hallway, these interactions were not transcribed. However, since children

were brought to the school at various times because both of the employment places used flexible scheduling, most of the tapes contained only conversations between an individual child and a parent. No attempt was made to control for the fact that more mothers than fathers brought their children to the school in the morning and more fathers than mothers called for their children in the afternoon.

Results

All of the transcriptions and analyses were done by two professors of education and two graduate students in education. After the parent-child conversations were transcribed, the mean length of utterance was calculated for each parent. Contractions were counted as two words and hyphenated words such as "good-bye" were counted as one. Also words such as "gonna" and "wanna" were counted as two words, and word repetitions were included in the calculations. The results showed that both fathers and mothers used a shortened utterance length when speaking to young children as compared to the expected adult utterance length of 8 to 13 words (Phillips, 1973). The mean length of utterance for fathers ranged from 3.56 to 5.94 with a mean of 4.49 and a standard deviation of 1.21; while the mean length of utterance for mothers ranged from 4.23 to 6.15 with a mean of 4.69 and standard deviation of 1.32. Statistical analysis indicated no significant difference

between fathers and mothers on this index of language complexity, (t= .58).

Speech samples of both mothers and fathers were then analyzed as to sentence types. Sentence types used in the classification were (1) interrogatives-- utterances which indicated that certain information was being requested; (2) declaratives-- utterances which were used to make a statement; and (3)imperatives-- utterances which were used to command or direct behavior. Any sentence which could not be classified under the following sentence types was not analyzed.

The results of this analysis showed that the mean percentage of declarative sentences used by fathers was 38.12 per cent with a standard deviation of 10.41, and the mean percentage of declarative sentences used by mothers was 46.32 per cent with a standard deviation of 7.0. When the use of interrogative sentences was analyzed, it was found that the mean percentage of interrogative sentences used by fathers was 47.78 per cent with a standard deviation of 9.22, and the mean percentage of interrogative sentences usd by mothers was 40.74 per cent with a standard deviation of 7.6. The mean percentage of imperative sentences used by fathers was 8.11 per cent with a standard deviation of 1.2, and the mean percentage of imperative sentences used by mothers was 8.51 per cent with a standard deviation of .94. Thus, for fathers the most widely used sentence was the

interrogative sentence, followed in order by declaratives and imperatives. For mothers the most widely used sentence was the declarative sentence followed in order by interrogatives and imperatives. Statistical analysis of the data showed that fathers used significantly more interrogative sentences than mothers ($t = 3.42$, $p>.01$ level), and that mothers used significantly more declarative sentences than fathers ($t = 2.9$, $p > .01$). No significant difference between mothers and fathers were found in the use of imperative sentences ($t = 1.3$ $p>.01$).

The speech samples were also analyzed according to the frequency of the words used by fathers and mothers. The rank list of word frequencies found in the COMPUTATIONAL ANALYSIS OF PRESENT-DAY AMERICAN ENGLISH by Kucera and Francis (1967)was used as the source for the word frequencies. The first 1500 words on the Kucera-Francis ranked list were considered high frequency words, and any word not appearing on this list was considered a low frequency word and counted as such in the analysis. The word frequency count showed that the mean percentage of low frequency words used by fathers was 4.3 per cent with a standard deviation of .92, and the mean percentage of low frequency words used by mothers was 2.4 per cent with a standard deviation of .72. which was a significant difference ($t= 9.0$, $p .>.001$). Also, in the analysis of

word frequencies, it was noted that when a father used infrequent words such as "construction site", "pride",or "valued customer", the child would often repeat the father's words immediately.

Discussion

The results of this study of parental language directed to young children have shown several similarities in the language modifications that parents make when speaking to young children. Both mothers and fathers shorten the mean length of utterance in order to accommodate the language needs of their young children. The results obtained from the analysis of the mean length of utterance are consistent with the results obtained from the previous studies by Poler (1977) and Fash and Madison (1981).

However significant differences were found in the types of sentences which fathers and mothers use when speaking to their children. Fathers use significantly more interrogative sentences than mothers and mothers use significantly more declarative sentences than fathers. Both parents use few imperative sentences. This finding agrees with the finding reported by Masur and Gleason (1980) which showed that fathers requested more labels and functions and generally were more linguistically demanding towards children than were mothers. It does not agree, however, with the Gleason (1975) study which found that fathers used

more imperatives than mothers when addressing their children.

The fnding that fathers use significantly more words of lower frequency than mothers also verifies the finding by Parke and O'Leary (1975) that fathers generally provide a more stimulating, diversified, and challenging speech environment than mothers. It also agrees with Weinraub's (1978) study which reported that fathers' speech was more lexically complex than mothers' speech, and with the study done by Masur and Gleason (1980) who found that fathers provided and elicited significantly more information than mothers.

Limitations

A major limitation of this study is that no differentiation was made in regard to the sex of the child in the analysis of the parental speech patterns. Much recent research has shown that the parental speech patterns are affected by the sex of the child, and the predominance of girls in the sample may have influenced the results. In future studies, care needs to be taken to control for the effect of the child's sex on the speech patterns of parents.

Another limitation of the present study was the fact that more fathers than mothers called for their children after school. Because parents of either sex generally

inquired about the events of the day, this fact might have influenced the high rate of interrogative sentence types which fathers produced.

Conclusion

The results of this study seem to indicate that parents do modify their language to accommodaate the language needs of their pre-school children in similar ways. However, their communication patterns appear to vary to some degree in the areas of sentence types and word frequencies. More research, especialy on the effect of the sex of the child, the educational level of the parents,and the effect of the presence of the other parent is needed before these complex speech patterns will be understood.

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